

09/737,413



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Santokh S. Badesha, et al.

Application for Patent

Application No.: 09/737,413

Filed: December 14, 2000

D/A0592Q

Examiner: Lawrence Ferguson

Group Art Unit: 1774

Title: TRANSFIX COMPONENT HAVING
MICA-TYPE SILICATE OUTER LAYER

APPELLANT'S BRIEF ON APPEAL

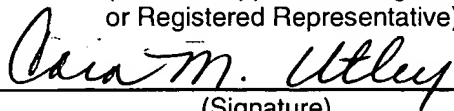
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Cora M. Utley

(Name of appellant, assignee,
or Registered Representative)


(Signature)

January 12, 2003
(Date of Signature)

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2. Real Party of Interest

Xerox Corporation.

3. Related Appeals and Interferences

No other Appeals or Interferences are known to Appellants, Appellants' Legal Representative, or the Assignee which will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending Appeal.

4. Status of Claims

Claims 1- 21 are rejected.

5. Status of Amendments

Appellant's Amendment after Final Rejection under 37 C.F.R. §1.116 dated September 29, 2003, was considered and entered but did not overcome the outstanding rejections.

6. Summary of Invention

Appellant's invention is directed, in embodiments, to an image forming apparatus for forming images on a recording medium having a) a charge-retentive surface to receive an electrostatic latent image thereon; b) a development component to apply a developer material to said charge-retentive surface to develop said electrostatic latent image to form a developed image on said charge-retentive surface; c) a transfer component for transferring said developed image from said charge-retentive surface to an intermediate transfer component; d) an intermediate transfer component for receiving said developed image from said transfer component and transferring said developed image to a transfix component; and e) a transfix component to transfer the developed image from said intermediate transfer component to a copy substrate and to fix said developed image to said copy substrate (present application, hereinafter, "pa," page 7, line 14 - page 8, line 4; page 10, line 3 - page 11, line 6; claim 1; and Figure 1). The present invention is further directed to a transfix component including 1) a transfix substrate, and thereover 2) an outer transfix layer comprising a mica-type layered silicate and silicone elastomer, said silicone elastomer and said mica-type layered silicate together forming a delaminated nanocomposite, and 3) a heating member associated with said transfix substrate (pa, page 11, lines 16-19 and lines 25-28; page 11, lines 2-3 and lines 11-12; and claims 1 and 20). The transfix component may be a part of the image forming apparatus (claims 1 and 21). The transfix component may comprise a conformable intermediate layer positioned between the outer transfix layer and the transfix substrate (pa, page 11, lines 16-18; and claims 13 and 21).

7. Issues

A. Whether claims 1-10 and 13-21 are unpatentable under 35 U.S.C. §103(a) over Badesha, et al. (U.S. Patent 5,846,643) in view of Swift et al. (U.S. Patent 6,381,436).

B. Whether claims 1-17 and 20-21 are unpatentable under 35 U.S.C. §103(a) over Badesha, et al. (U.S. Patent 5,846,643) in view of Badesha et al. (U.S. Patent 6,482,504).

8. Grouping of Claims

I. Claims 1-21 stand or fall together.

9. Argument

Referring to Figures 1 through 6 and pages 7-26 of the application, there is demonstrated embodiments of the image forming apparatus and transfix component. The claimed elements include an image forming apparatus for forming images on a recording medium having a) a charge-retentive surface to receive an electrostatic latent image thereon; b) a development component to apply a developer material to said charge-retentive surface to develop said electrostatic latent image to form a developed image on said charge-retentive surface; c) a transfer component for transferring said developed image from said charge-retentive surface to an intermediate transfer component; d) an intermediate transfer component for receiving said developed image from said transfer component and transferring said developed image to a transfix component; and e) a transfix component to transfer the developed image from said intermediate transfer component to a copy substrate and to fix said developed image to said copy substrate (pa, page 7, line 14 - page 8, line 4; page 10, line 3 - page 11, line 6; claim 1; and Figure 1). In embodiments, the transfix component includes 1) a transfix substrate, and thereover 2) an outer transfix layer comprising a mica-type layered silicate and silicone elastomer, said silicone elastomer and said mica-type layered silicate together forming a delaminated nanocomposite, and 3) a heating member associated with said transfix substrate (pa, page 11, lines 16-19 and lines 25-28; page 11, lines 2-3 and lines 11-12; and claims 1 and 20). The transfix component may be a part of the image forming apparatus (claims 1 and 21).

In embodiments, the mica-type silicate has the formula of claim 2 (pa, page 16, lines 19-27 and claim 2). In embodiments, the mica-type silicate is selected from the group consisting of muscovite, phlogopite, biotite, lepidolite, montmorillonite, bentonite, hectorite, vermiculite and saponite (pa, page 16, line 27 - page 17, line 1; and claim 3). In embodiments, the mica-type layered silicate is present in the outer transfix layer in an amount of from about 1 to about 50 weight percent based on the weight of the silicone elastomer (pa, page 17, lines 18-20; and claim 4), or from about 5 to about 20 weight percent based on the weight of the silicone elastomer (pa, page 17, lines 18-22; and claim 5).

In embodiments, the silicone elastomer is a polyorganosiloxane (pa, page 12, lines 23; and claim 6), and having the formula of claim 7 (pa, page 12, lines 3-14; and claim 7). In embodiments, in the formula of claim 7, A and B are vinyl (pa, page 12, line 13; and claim 8). In embodiments, the polyorganosiloxane is a silanol-terminated polydimethylsiloxane having the formula of claim 9 (pa, page 13, lines 5-10; and claim 9). In embodiments, the polyorganosiloxane is an addition-cured polydimethylsiloxane having the formula of claim 10 (pa, page 14, line 20 - page 15, line 4; and claim 10).

The transfix component may comprise a conformable intermediate layer positioned between the outer transfix layer and the transfix substrate (pa, page 11, lines 16-18; and claims 13 and 21). The intermediate layer may comprise a material selected from the group consisting of fabrics, fluoropolymers, and silicone rubbers (pa, page 21, lines 16-25; and claim 14). The intermediate layer may have a thickness of from about 5 to about 75 mils (pa, page 21, lines 14-15; and claim 15).

In embodiments, the transfix substrate comprises a material selected from the group consisting of metal and fabric (pa, page 20, lines 16-17; and claim 11). In embodiments, the substrate material is selected from the specific fabrics of claim 12 (pa, page 20, lines 16-17; and claim 12).

In embodiments, the outer layer has a thickness of from about 0.1 to about 10 mils (pa, page 20, lines 11-12; and claim 16), or from about 1 to about 5 mils (pa, page 20, lines 12-13; and claim 17).

In embodiments, a first adhesive layer is positioned between the transfix substrate and the conformable intermediate layer (pa, page 21, line 27 - page 22, line 1; and claim 18). In embodiments, a second adhesive layer is present between the conformable intermediate layer and the outer transfix layer (pa, page 21, line 27 - page 22, line 2; and claim 19).

A. Whether claims 1-10 and 13-21 are unpatentable under 35 U.S.C. §103(a) over Badesha, et al. (U.S. Patent 5,846,643) in view of Swift et al. (U.S. Patent 6,381,436).

Claims 1-10 and 13-21 stand rejected under 35 U.S.C. §103(a) over Badesha, et al. (U.S. Patent 5,846,643) in view of Swift et al. (U.S. Patent 6,381,436).

1) There is no *prima facie* case of obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP §706.02(j).

a) The references, taken together, do not teach or suggest all the claim limitations

The references alone, and in combination, do not teach or suggest an imaging member comprising a three-member transfer apparatus.

Badesha, et al. teaches the following apparatus 1) a charge-retentive surface, 2) a development component, and 3) a fusing component (Badesha et al, col. 1, lines 21-45). The reference does not teach or suggest an apparatus comprising the claimed elements including 1) a charge-retentive surface, 2) a development component, 3) a transfer component, 4) an intermediate transfer component, and 5) a transfix component (claim 1). Appellants specifically point out that Badesha, et al. does not teach or suggest an image forming apparatus comprising a three-transfer member apparatus comprising all of 1) a transfer component, 2) an intermediate transfer component, and 3) a transfix component. More specifically, Badesha et al. does not teach or suggest a transfer member or an intermediate transfer component as claimed. Further, Badesha et al. does not teach or suggest a transfix component, but instead, relates to a fuser member (Badesha et al., Abstract). These three claimed elements, in combination, are not taught or suggested by Badesha, et al.

The Examiner states that Badesha et al. teaches a transfer component at column 1, lines 16-48 (Advisory Action, 10/15/03, continuation of 5). However, Badesha et al. at column 1, lines 16-48 merely teaches exposing a light image, developing, and transferring to a support surface for fusing. However, the reference does not teach a transfer station or member. The Examiner further states that Badesha et al. teaches an intermediate transfer component at column 3, lines 44-45 (Advisory Action, 10/15/03, continuation of 5). However, at column 3, lines 42-45, the reference states, "It is accordingly desirable to provide a silicone elastomer composition for use in a fusing member whether it be a fusing surface layer or an intermediate support layer in a fuser member for an electrostatographic printing apparatus (Badesha, et al., col. 3, lines 42-45). The reference is referring to an intermediate support layer of the fusing member and is not relating to an intermediate transfer member as claimed. Therefore, Badesha et al. does not teach or suggest an intermediate transfer component, or the three member transfer apparatus as claimed.

Badesha, et al. teaches the claimed outer layer comprising a mica-type layered silicate and silicone elastomer, said silicone elastomer and said mica-type layered silicate together forming a delaminated nanocomposite (Badesha et al., col. 3, line 67 - col. 4, line 5). However, Badesha, et al. does not teach or suggest using the outer layer as an outer layer for a transfix component as claimed.

The Examiner relies on Swift, et al. as teaching a transfix component (Office Action, 8/12/03, pg. 4, lines 6-9). However, Appellants respectfully submit that Swift, et al. does not provide the deficiencies of Badesha, et al. Swift, et al. teaches a marking apparatus comprising 1) a charging station, 2) an imaging station, 3) a developer, 4) a transfer station having an intermediate transfer belt, and 4) a fuser or transfix component (Swift et al., col. 4, lines 39-47). Swift, et al., as with Badesha, et al., does not teach or suggest a three-transfer member apparatus comprising all of 1) a transfer component, 2) an intermediate transfer component, and 3) a transfix component. Swift et al. does not teach or suggest a transfer member in addition to an intermediate transfer member.

Therefore, neither reference teaches or suggests the combination in the claimed apparatus of 1) a transfer component, 2) an intermediate transfer component, and 3) a transfix component. Appellants submit that this is evidence of nonobviousness.

b) There is no suggestion to modify or combine the references

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. *In re Geiger*, 2 USPQ2d 1276 (Fed. Cir. 1987); *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988).

A piecemeal reconstruction of the prior art patents in light of Appellant's disclosure is not a basis for a holding of obviousness. *In re Kamm et al.*, 172 USPQ 298 (CCPA 1972). The mere fact that the prior art devices could have been modified does not make the modification obvious unless the prior art suggested the desirability to such a modification. *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984); *Jones v. Hardy*, 220 USPQ 1021 (Fed. Cir. 1984).

Not only do the references not teach or suggest all of the elements of the claims, there is also no teaching or suggestion in the references to use the mica-type layered silicate material of Badesha, et. al. as an outer layer for a transfix component of Swift et al. Appellants submit that Swift, et al. teaches an apparatus that may include a fuser or a transfix component (Swift et al., col. 4, line 47), but does not teach or suggest that a layer for a fuser member can be used successfully as a transfix component outer layer. More specifically, Appellants submit that the teaching in Swift, et al. at column 4, line 47, referred to by the Examiner (Advisory Action, 10/15/03, continuation of 5), that an apparatus can include a "fuser or a transfix component," is not a teaching that an outer layer for use with a fuser component would work as an outer layer for a transfix component. The Swift, et al. reference does not teach or suggest that an outer layer useful as a fuser member can be successfully used as an outer layer on a transfix component. The reference merely states that an apparatus can have either a fuser member or a transfix component (Swift et al., col. 4, line 47). The teaching of the use of "a fuser or transfix" member, is just a teaching that either can be used in combination with the intermediate transfer belt of Swift et al. A myriad of substrates, intermediate layers, outer layers and other layers can be used on fusers and on transfix members. The statement that a marking apparatus can include either a fuser or a transfix component is not a suggestion that all possible layer combinations and configurations work the same on fusers and transfix members. In fact, there is no mention of fuser or transfix materials, layer combinations, or layer configurations in the entire reference.

Further, Appellants submit that one of ordinary skill in the art would not have been motivated to use an outer layer taught for use on a fuser member, for use as an outer layer in a transfix component as claimed. A fuser member and a transfix member have different electrical, mechanical, and chemical requirements for the layers thereof (pa, pg. 2, line 22 - pg. 3, line 28).

The requirements for fusing a toner image to a copy substrate are somewhat different from the requirements for transferring a developed image from an intermediate transfer component to a copy substrate and subsequently fusing thereto (transfix). A transfix component must have an outer layer having the ability to attract toner, transfer toner, and fix the developed toner image to a copy substrate (pa, pg. 3, lines 1-9). A fuser member, on the other hand, must have the ability to simply fix the developed image to a copy substrate (Badesha et al., col. 1, lines 47-56). A fuser member does not attract or transfer toner. One of the requirements of the transfix component is to attract a toner image from an intermediate transfer component and subsequently transfer the image (pa, pg. 3, lines 1-9). A fuser member does not need to possess these abilities, as the developed image is already present on the copy substrate and the fuser member just fixes the developed image to the copy substrate (Badesha et al., col. 1, lines 47-56). The fuser member does not attract toner, but instead, has the opposite property of making sure toner is not attracted to the fuser component (Badesha et al., col. 2, lines 14-34). Such attraction of toner would cause contamination problems and hot offset (Badesha et al., col. 2, lines 14-34). Therefore, Appellants submit that because of the differences in properties of fuser members and transfix members, and because of the different requirements of layers for the two distinguishing members, one of ordinary skill would not have been motivated to use an outer layer of a fuser member for an outer layer for a transfix member.

In addition, Badesha et al. relates to fuser members (Badesha et al., Abstract), whereas Swift et al. relates to seamed intermediate transfer members (Swift, et al., Abstract). There is no teaching or suggestion in either reference to combine the references. Appellants submit that one of ordinary skill in the art would not have been motivated to combine the teachings of a reference related to fuser members, with a reference related to seamed intermediate transfer members. And assuming, *arguendo*, that the references were combined, Appellants respectfully submit that there is no teaching or suggestion to use the outer layer of the fuser member of Badesha et al., as an outer layer of the transfix member of Swift et al.

Therefore, Appellants respectfully submit that there is no teaching or suggestion or motivation to combine the teachings of the references.

c) There is no reasonable expectation of success

Appellants respectfully submit that there is no reasonable expectation of success.

As set forth above, the requirements for fusing a toner image to a copy substrate are somewhat different from the requirements for transferring a developed image from an intermediate transfer component to a copy substrate. A transfix component must have an outer layer having the ability to attract toner, transfer toner, and fix it to a copy substrate (pa, pg. 3, lines 1-9). A fuser member, on the other hand, must have the ability to simply fix the developed image to a copy substrate (Badesha et al., col. 1, lines 47-56). A fuser member does not transfer toner (Badesha et al., col. 2, lines 14-32). One of the requirements of the transfix component is to attract a toner image from an intermediate transfer component and transfer the developed image to a copy substrate (pa, pg. 3, lines 1-9). A fuser member does not need to possess this ability, as the developed image is already present on the copy substrate and the fuser member just fixes the developed image to the copy substrate (Badesha et al., col. 1, lines 47-56). The fuser member does not attract toner, but instead, has the opposite property of making sure toner is not attracted to the fuser component (Badesha et al., col. 2, lines 14-32). Such attraction of toner would cause contamination problems and hot offset (Badesha et al., col. 2, lines 14-32). Therefore, due to the unique differences in outer layers for transfix and fusing members, Appellants submit that there would have been no reasonable expectation that an outer layer of a fuser member would work successfully as an outer layer for a transfix member.

Therefore, Appellants respectfully submit that there is no reasonable expectation of success.

2) Summary

In view of the fact that neither reference teaches or suggests all the elements of the claims, including 1) a transfer component, 2) an intermediate transfer component, and 3) a transfix component; further in view of the fact that there is no motivation to combine the references cited or substitute the outer layer of the fuser member of Badesha et al. for the outer layer of the transfix member of Swift et al; and moreover, in view of the fact that there is no reasonable expectation of success that an outer layer of a fuser member can be successfully used as an outer layer of a transfix member, Appellants submit that the present claims are not rendered obvious in view of the cited references. Accordingly, Appellants request withdrawal that the Board overrule the Examiner's rejection of claims 1-10 and 13-21 under 35 USC §103(a) as obvious over Badesha, et al. in view of Swift, et al.

B. Whether claims 1-17 and 20-21 are unpatentable under 35 U.S.C. §103(a) over Badesha, et al. (U.S. Patent 5,846,643) in view of Badesha et al. (U.S. Patent 6,482,504).

Claims 1-17 and 20-21 stand rejected under 35 U.S.C. §103(a) over Badesha, et al. (U.S. Patent 5,846,643) in view of Badesha et al. (U.S. Patent 6,482,504).

1) There is no *prima facie* case of obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP §706.02(j).

a) There is no suggestion to modify or combine the references

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. *In re Geiger*, 2 USPQ2d 1276 (Fed. Cir. 1987); *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988).

Badesha et al. '643 has been discussed above and does not teach or suggest the claimed apparatus including 1) a transfer component, 2) an intermediate transfer component, and 3) a transfix component. Badesha, et al. '643 teaches an apparatus having 1) a charge-retentive surface, 2) a development component, and 3) a fusing component (Badesha et al '643, col. 1, lines 21-45). The reference does not teach or suggest an apparatus comprising the claimed elements including 1) a charge-retentive surface, 2) a development component, 3) a transfer component, 4) an intermediate transfer component, and 5) a transfix component. Appellants specifically point out that Badesha, et al. '643 does not teach or suggest an image forming apparatus comprising a three-transfer member apparatus comprising all of 1) a transfer component, 2) an intermediate transfer component, and 3) a transfix component. More specifically, Badesha et al. '643 does not teach or suggest a transfer member or an intermediate transfer component as claimed. Further, Badesha et al. '643 does not teach or suggest a transfix component, but instead, relates to a fuser member (Badesha et al. '643, Abstract). These three claimed elements, in combination, are not taught or suggested by Badesha, et al.

Turning to Badesha et al. '504, this reference teaches an apparatus including 1) a transfer component, 2) an intermediate transfer component, and 3) a transfix component (Badesha et al. '504, col. 1, line 16 - col. 2, line 5). However, the reference does not teach or suggest the mica-

type layered silicate as claimed. Appellants submit that one of ordinary skill would not have been motivated to substitute the outer layer of the fuser member of Badesha, et al. '643 for the outer layer for the transfix member of Badesha, et al. '504.

There is no teaching or suggestion in either reference to modify the transfix component small molecule outer layer of Badesha, et al. '504 to include the mica-type layered silicate material taught by Badesha, et al. '643. The secondary reference teaches use of small molecules in the intermediate layer that diffuse through the outer layer and can be used as a release agent (Badesha et al. '504, Abstract and col. 4, lines 41-46). The outer silicate layer as claimed, is completely distinguishable from small molecules of an intermediate layer diffusing through an outer layer as taught by Badesha et al. '504. The chemistry and mechanical properties of the small molecule intermediate layer of Badesha, et al. '504 is completely different than the outer silicate layer taught by Badesha, et al. '643 and as claimed. Appellants submit that Badesha et al. '504 teachings of small molecules diffusing out of an outer layer to provide release, would not have motivated one of ordinary skill in the art to make the substitution of the silicate outer layer as claimed.

Further, Appellants submit that one of ordinary skill in the art would not have been motivated to use an outer layer taught for use on a fuser member as in Badesha et al. '643, for use as an outer layer in a transfix component as claimed or as taught by Badesha et al. '504. The requirements for fusing a toner image to a copy substrate are different from the requirements for transferring a developed image from an intermediate transfer component to a copy substrate, and simultaneously fixing the developed, transferred image to that copy substrate. A transfix component must have an outer layer having the ability to attract toner, transfer toner, and fix it to a copy substrate (Badesha et al. '504, col. 1, lines 59-64). A fuser member, on the other hand, must have the ability to simply fix it to a copy substrate (Badesha et al. '643, col. 1, lines 47-56). A fuser member does not transfer toner. One of the requirements of the transfix component is to attract and transfer a developed toner image from an intermediate transfer component to a copy substrate (Badesha et al. '504, col. 1, lines 59-64). A fuser member does not need to possess these abilities, as the developed image is already present on the copy substrate and the fuser member just fixes the developed image to the copy substrate (Badesha et al. '643, col. 1, lines 47-56). The fuser member does not attract toner, but instead, has the opposite property of making sure toner is not attracted to the fuser component (Badesha et al., '643, col. 2, lines 14-32). Such attraction of toner would cause contamination problems (Badesha et al., '643, col. 2, lines 14-32).

In addition, Badesha et al. '643 relates to fuser members (Badesha et al., Abstract), Badesha et al. '504 relates to transfix components (Badesha et al. '504, Abstract). There is no teaching or suggestion in any of the cited references to combine the different references. Appellants submit that one of ordinary skill in the art would not have been motivated to combine the teachings of a reference related to fuser members (Badesha et al., '643), with a reference related to transfix members (Badesha et al. '504). Assuming, *arguendo*, that the references were combined, Appellants respectfully submit that there is no teaching or suggestion to use the outer layer of the fuser member of Badesha et al. '643, as an outer layer of the transfix member of Badesha et al. '504.

In addition, the Examiner states that in order to have obviousness, there does not need to be a suggestion to modify the references in any one or all of the references (Office Action, 12/14/2000, page 11, line 9-11; Advisory Action, 10/15/2003, Continuation of 5). Appellants respectfully submit that there must be some teaching or suggestion in the references that would have motivated one of ordinary skill in the art to make the combination and to make the change suggested in the obviousness rejection.

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. *In re Geiger*, 2 USPQ2d 1276 (Fed. Cir. 1987); *In re*

Fine, 5 USPQ2d 1596 (Fed. Cir. 1988).. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP §706.02(j). A piecemeal reconstruction of the prior art patents in light of Appellants' disclosure is not a basis for holding of obviousness, *In re Kamm, et al.*, 172 USPQ 298 (CCPA 1972). The mere fact that the prior art devices could have been modified does not make the modification obvious unless the prior art suggested the desirability of such a modification, *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984); *Jones v. Hardy*, 220 USPQ 1021 (Fed. Cir. 1984).

Therefore, there must have been some teaching or suggestion to replace the transfix components of Badesha, et al. '504, with the outer fuser member layer of Badesha, et al. '643. Appellants respectfully submit that there is no such suggestion or teaching in the references cited.

b) There is no reasonable expectation of success

Appellants respectfully submit that there is no reasonable expectation of success.

As set forth above, the requirements for fusing a toner image to a copy substrate (Badesha et al. '643) are very different from the requirements for both transferring and fixing a developed image to a copy substrate (Badesha et al. '504). A transfix component must have an outer layer having the ability to attract toner, transfer toner, and fix it to a copy substrate (Badesha et al. '504, col. 1, lines 59-64). A fuser member, on the other hand, must have the ability to simply fix it to a copy substrate (Badesha et al. '643, col. 1, lines 47-56). A fuser member does not transfer toner. One of the requirements of the transfix component is to attract a toner image from an intermediate transfer component substrate (Badesha et al. '504, col. 1, lines 59-64). A fuser member does not need to possess this ability, as the developed image is already present on the copy substrate and the fuser member just fixes the developed image to the copy substrate (Badesha et al. '643, col. 1, lines 47-56). Such attraction of toner would cause hot offset and contamination problems (Badesha et al., '643, col. 2, lines 14-32). Therefore, due to the unique differences in outer layers for transfix and fusing members, Appellants submit that there would have been no reasonable expectation that an outer layer of a fuser member would be successful as an outer layer for a transfix member.

Therefore, Appellants respectfully submit that there is no reasonable expectation of success.

c) Summary

Accordingly, because there is no motivation to combine the references and substitute the silicate outer fusing layer of Badesha et al. '643 for the outer transfix layer of Badesha et al. '504 having an intermediate layer with small molecules, and because there would have been no expectation of success for the substitution, Appellants request that the Board overrule the Examiner's rejection of claims 1-17 and 20-21 under 35 U.S.C. §103(a) over Badesha, et al. (U.S. Patent 5,846,643) in view of Badesha et al. (U.S. Patent 6,482,504).

C. Summary

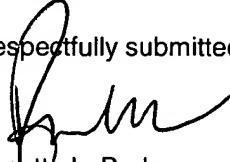
In summary, Appellants submit that claims 1-10 and 13-21 are not obvious over Badesha, et al. (U.S. Patent 5,846,643) in view of Swift et al. (U.S. Patent 6,381,436). Appellants submit that a *prima facie* case of obviousness has not been made. The references taken together, do not teach or suggest the three-transfer member apparatus. Further, Appellants submit that one of ordinary skill in the art would not have been motivated to use an outer layer taught for use on a fuser member, for use as an outer layer in a transfix component as claimed due to the unique

chemical, mechanical and electrical properties of the different electrostatographic parts. Also, due to the unique differences in outer layers for transfix and fusing members, Appellants submit that there would have been no reasonable expectation that an outer layer of a fuser member would work well as an outer layer for a transfix member.

Appellants further submit that claims 1-17 and 20-21 are not obvious over Badesha, et al. (U.S. Patent 5,846,643) in view of Badesha et al. (U.S. Patent 6,482,504). Therefore, due to the unique differences in outer layers for transfix and fusing members and due to the diverse teachings of Badesha et al. '504 of small molecules diffusing through the outer transfix layer, Appellants submit one of ordinary skill would not have been motivated to substitute the outer silicate fuser layer of Badesha et al. '643 for the outer transfix layer of Badesha et al. '504. Also, Appellants respectfully submit that there is no expectation of success that an outer layer for a fuser member would work as an outer layer of a transfix member. A transfix member transfers and fixes a developed image, whereas a fuser member only fuses the developed image.

For the reasons set forth herein, Appellants are of the position that the claims of the present application are patentable, and accordingly respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's rejections of the claims.

Respectfully submitted,



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